

ABSTRACT OF THE DISCLOSURE

A position sensor device that produces a variable output voltage when using a light emitting diode, such as an infrared light emitting diode (IR-LED), and a phototransistor further includes the use of a semi-transparent piece of material having a varying thickness that passes between the IR-LED and the phototransistor. The output voltage provided by the phototransistor varies depending on the amount of light collected by the phototransistor, which is controlled by the amount of light passing through the semi-transparent material. The amount of light passing through the transparent material depends on the thickness of the semi-transparent material. With the invention, the semi-transparent material may pass between the IR-LED and phototransistor in either a linear or rotary manner.